

Notulae Ichthyologiae Orientalis  
V. A synopsis  
of the oriental cyprinid genus *Sikukia*  
VI. Status of the Kampuchea cyprinid  
*Albulichthys krempfi*

by

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Avec 1 figure

ABSTRACT

Notulae Ichthyologiae Orientalis. V. A synopsis of the oriental cyprinid genus *Sikukia*. VI. Status of the Kampuchea cyprinid *Albulichthys krempfi*. — *Sikukia* Smith, 1931, *S. stejneri* Smith, 1931 and *S. gudgeri* (Smith, 1934) are briefly re-diagnosed. *Xenochelichthys* Smith, 1934 is a synonym of *Sikukia* and *X. loppei* Durand, 1940 is a synonym of *S. stejneri*. *Sikukia* is characterized by the possession of plumose gill-rakers, an unique apomorphy among cyprinoids. *Albulichthys krempfi* Pellegrin & Chevey, 1927 is a synonym of *A. albuloides* (Bleeker, 1855).

V. A SYNOPSIS OF THE ORIENTAL CYPRINID GENUS *SIKUKIA*

The cyprinid genus *Sikukia* Smith, 1931 includes medium-sized fishes which inhabit the mainstream of large rivers in the middle and lower Mae Nam Khong and Mae Nam Chao Phraya drainages and in Peninsular Thailand. Their phylogenetic relationships are presently unsolved but in overall appearance they resemble such genera as *Albulichthys* Bleeker, 1860 and *Amblyrhynchichthys* Bleeker, 1859. The aim of this paper is to establish the synonymy of *Sikukia* and of the subordinated taxa.

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**Sikukia Smith**

*Sikukia* Smith, 1931:138 (type species: *S. stejnegeri* Smith, by original designation).

*Xenocheilichthys* Smith, 1934:304 (type species: *X. gudgeri* Smith, by original designation). **New synonym.**

Diagnosis: *Sikukia* is easily differentiated from any other genus of South-East Asiatic cyprinid by the presence of plumose gill-rakers (fig. 1). In addition, it presents the following characters: D 4/8½; A 3/5-6½; last simple dorsal ray osseous and serrated posteriorly; last simple anal ray stout but not osseous and not serrated; no barbels; lips thin; posterior lip connected to skin of isthmus, with a postlabial groove

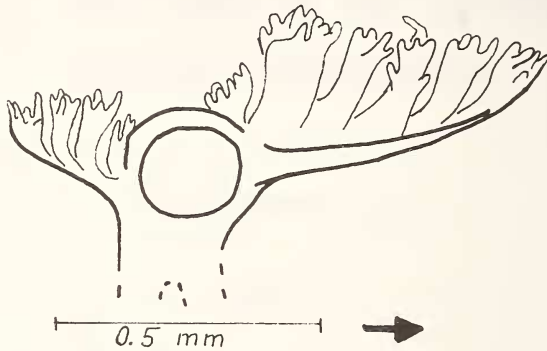


FIG. 1.

Transversal section through first right gill-arch of *Sikukia stejnegeri*, NIFI uncat., 77 mm SL, to show plumose gill-rakers. Arrow shows direction of head. Schematized, gill filaments omitted.

only laterally; an annular gelatinous eyelid; complete lateral line, perforating 29-34 scales; triserial pharyngeal teeth; no procumbent pre-dorsal spine; no vomero-palatine organ.

Discussion: SMITH (1934) created *Xenocheilichthys* for the accomodation of *X. gudgeri* characterized by: an annular eyelid, no barbels, "peculiar shape of the mouth and the lips", short dorsal fin with strongly ossified and serrated spine, rounded snout with a large median lobe, mouth which does not reach perpendicular of eye, thick, broad and soft upper lip. All these characters (except thickness of upper lip) are shared with *Sikukia stejnegeri*. Additionally, both species share the synapomorphy of having plumose gill-rakers. I thus do not hesitate in considering them as congeneric. The "median lobe of the snout" of SMITH is the area of snout between the anterior tips of the lacrymal bones.

**Key to the species of Sikukia**

- 1. — A 3/6½; L.1.32-34; a black spot at anterior base of dorsal fin; 25-27 gill-rakers on first gill-arc. . . . . *S. stejnegeri* Smith
- A 3/5½; L.1.29-31; tip of dorsal fin blackish; 30-33 gill-rakers on first arch. . . . . *S. gudgeri* (Smith)

***Sikukia stejneri* Smith**

*Sikukia stejneri* Smith, 1931-138 (original description; type locality: Sikuk River, Thailand).

*Xenocheilichthys loppei* Durand, 1940:8, pl. 2 (original description; type locality: Phnom Penh, Kampuchea). **New synonym.**

Diagnosis and description: *Sikukia stejneri* is easily distinguished from its only congener by the characters indicated in the preceding key. Detailed descriptions, diagnosis and illustrations are given by SMITH (1931), DURAND (1940) and IMAKI & TAKI (1976). These are not repeated here.

Discussion: DURAND (1940) described *Xenocheilichthys loppei* from Phnom Penh, Kampuchea. He compared it with *S. gudgeri* and found them to differ in the same characters given in the above key. His type-specimens, which were possibly deposited in the Cauda laboratory of the former Institut Océanographique d'Indochine are not available for study. But as his description and illustration correspond well with SMITH's original description of *S. stejneri* and as the diagnostic characters of *X. loppei* are also diagnostic of *S. stejneri*, I consider them as conspecific.

WU *et al.* (1977) placed *S. stejneri* in *Albulichthys*. I agree with BANARESCU (1980) that they are generically distinct. Additionally, *Albulichthys albuloides* (Bleeker, 1855), the type species of *Albulichthys*, has strong and long unbranched gill-rakers.

Material examined: KUMF 164, HOLOTYPE, 77.8 mm SL; Thailand: Sikuk River at Ban Dong; H. M. Smith, 26 XI 1923. — NIFI uncat., 35 ex., 41.5-103.5 mm SL; Thailand (mixed localities: Mae Nam Chao Phraya at Chainat [15° 11' N 100° 08' E], Khwae Yai at Kanchanaburi [14° 01' N 99° 32' E]); Pricha Tiencharern, 1970. — NIFI uncat., 13 ex., 36.7-64.1 mm SL; Thailand: Kanchanaburi Prov.: Khlong Ban Yang, Mae Nam Khwae Yai; 27 VIII 1972. — MNHN uncat., 2 ex.; Kampuchea: Tonlé Sap, km 9; d'Aubenton, 30 XI (1961?). — MNHN uncat., 1 ex.; Kampuchea: Tonlé Sap, km 13; d'Aubenton, 7 I 1963. — MHNG 2154.40, 1 ex., 78.9 mm SL; same data.

***Sikukia gudgeri* (Smith), new combination**

*Xenocheilichthys gudgeri* Smith, 1934-305 (original description; type locality: Nan, Thailand).

Diagnosis and description: *Sikukia gudgeri* is easily distinguished from its congener by the characters given in the above key. Detailed descriptions and illustrations may be found in SMITH (1934) and TAKI (1974). These are not repeated here.

Discussion: Reasons for placing this species in *Sikukia* have been given in the generic discussion.

Remark: BAIN & HUMPHREY (1980) consider this species as potentially endangered.

Material examined: KUMF 653, 1 ex., SYNTYPE, 107.8 mm SL; Thailand: Upper Nan River; Layang Gaddi, 20 IV 1930. — NIFI uncat., 4 ex., 48.5 mm SL-110.0 mm SL; Thailand: Nong Khai Prov.: Amphoe Bungkan (18° 22' N 103° 40' E): Mae Nam Khong, Ban Huei Dok Mai; Jaranthada Karnasuta, 2 III 1976.

VI. STATUS OF THE KAMPUCHEA CYPRINID *ALBULICHTHYS KREMPFI*

BLEEKER (1860) created the genus *Albulichthys* for a single species he formerly described (1855) as *Systemus albuloides*. This species is known to occur on Sumatra, Borneo (WEBER & DE BEAUFORT 1916), Thailand (SMITH 1945), Malaysia and Kampuchea (KOTTELAT, in press). The only other species referred to *Albulichthys* is *A. krempfi* Pellegrin & Chevey, 1927, described from Kampuchea. SMITH (1931) described *Sikukia stejnegeri* from Thailand, a species which has subsequently been placed in *Albulichthys* (WU *et al.*, 1977) of which *Sikukia* was considered to be a synonym. BANARESCU (1980), considering the differences in body depth, shape of suborbitals 1 and 2, mouth construction, treated *Sikukia* as a valid genus. This opinion has been corroborated by the discovery (see above) of plumose gill-rakers, a unique character in cyprinoids.

The name *A. krempfi* has been completely overlooked in basic taxonomic literature since its original description. Recent work on Kampuchea fishes (KOTTELAT, in press) led me to reconsider its status.

***Albulichthys albuloides* (Bleeker)**

*Systemus albuloides* Bleeker, 1855:425 (original description; type locality: Pontianak, Borneo).

*Albulichthys krempfi* Pellegrin & Chevey, 1927:304, fig. 1 (original description; type locality: Phnom Penh, Kampuchea).

Discussion: A description of this species appearing in several publications (BLEEKER, 1855; WEBER & DE BEAUFORT, 1916; PELLEGRIN & CHEVEY, 1927), I shall not repeat it here.

PELLEGRIN & CHEVEY (1927) considered *A. krempfi* as distinct of *A. albuloides* because of its larger eye, the snout being more truncate, dorsal fin less high, last simple dorsal ray less ossified, more slender caudal peduncle. Table 1 shows morphometric and meristic data of the holotype of *A. krempfi* and of two BLEEKER specimens from Indonesia. It appears that there are no significant differences in eye diameter and snout length. I did not note differences in ossification of last simple dorsal ray in specimens of approximately the same size. There effectively are some differences in shape of the caudal peduncle but I suspect that they partly result from difficulties in measuring its length due to the presence of numerous large scales at the base of caudal fin.

In conclusion, the material at hand (whose morphometric and meristic data appear on table 1) does not allow me to differentiate Indonesian and Indochinese specimens. Thus I consider *A. krempfi* to be a synonym of *A. albuloides*.

Material examined: MNHN 1927-167, HOLOTYPE of *A. krempfi*, 140 mm SL; Kampuchea: Phnom Penh; Krempf, 25 VII 1925. — RMNH 1425, 2 ex., 120-150 mm SL; Sumatra & Borneo; Bleeker. — MNHN uncat., 1 ex.; Kampuchea: Stung Chihreng; d'Aubenton, 25 I 1962. — MNHN uncat., 2 ex.; Kampuchea: Tonlé Sap, km 9; d'Aubenton, 16 II 1962. — MHNG 2153.84, 1 ex., 98 mm SL; same data.

TABLE 1.

*Albulichthys albuloides*. Morphometric and meristic data of two Indonesian specimens and of the holotype of *A. krempfi*. Morphometric data in % of SL, except SL in mm.

	RMNH 1425		MNHN 1927-167
	SL	150.0	120.0
Total Length	—	145	—
Head length	24	24	27
Prédorsal length	46	47	51
Preanal length	75	77	75
Prepelvic length	48	49	52
Pre-anus length	64	69	69
Head depth	17	16	19
Body depth	28	28	25
Depth of caudal peduncle	11	11	11
Length of caudal peduncle	14	17	18
Interorbital width	9	8	9
Eye diameter	7	8	8
Snout length	7	7	7
D	4/8 ½	4/8 ½	3/8 ½
A	3/5 ½	3/5 ½	3/5 ½
C (branched rays)	—	9+8	—
P	18	18	18-19
V	10	10	10
L.l.	33+5	34+3	35
L.tr.	½6/1/5 ½	½6/1/5 ½	½5/1/4 ½
L.tr. on caudal peduncle	½3/1/3 ½	½3/1/3 ½	½3/1/3 ½
Predorsal scales	—	10	12?

## ABBREVIATIONS USED

KUMF Kasetsart University Museum of Fisheries, Bangkok; MHNG Muséum d'Histoire naturelle, Genève; MNHN Muséum National d'Histoire naturelle, Paris; NIFI National Inland Fisheries Institute, Bangkok; RMNH Rijkmuseum van Natuurlijke Historie, Leiden; SL standard length.

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